



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,660	12/03/2001	Hiroshi Miyajima	15126	9638

7590 12/22/2003

Scully, Scott, Murphy & Presser
400 Garden City Plaza
Garden City, NY 11530-0299

EXAMINER

ALLEN, DENISE S

ART UNIT	PAPER NUMBER
----------	--------------

2872

DATE MAILED: 12/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/004,660	MIYAJIMA ET AL.	
	Examiner	Art Unit	
	Denise S Allen	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 4-21 and 23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 22, 2003 has been entered.

Response to Arguments

In the Applicant's response on September 22, 2003, the Applicant argues with respect to claims 1 and 22, that Minamoto (US 6,108,118) fails to teach or reasonably suggest a reflective-surface forming surface of the first portion that is smaller than the electric-element forming surface of the second portion of the movable plate as recited in amended claims 1 and 22 (pages 8 – 9). This argument has been fully considered and not found to be persuasive.

The Examiner respectfully disagrees with the Applicant's argument. The Examiner points out that Minamoto teaches a movable plate with reflective-surface forming surface (reference 106) that is smaller than the electric-element forming surface (reference 101) as shown in Figure 5A.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Minamoto.

Regarding claims 1 and 22, Minamoto teaches a mirror rocking member (Figures 2A and 2B) for an optical deflector, which comprises the mirror rocking member for deflecting light, and driving means (references 104 and 107) for driving the member, the mirror rocking member comprising: a movable plate (reference 101) having a reflective surface (reference 106); elastic members (reference 152) for rockably supporting the movable plate; and a support (reference 103) for supporting the elastic members, the movable plate having an electric element (reference 104), which constitutes a part of the driving means, the movable plate including a first portion (reference 101) having the reflective surface, and a second portion (references 102 and 110) including an electric element, the first portion having a reflective-surface forming surface (reference 106) with the reflective surface formed thereon, the reflective-surface forming surface being reflective (column 5 lines 42 – 45) substantially throughout (the entire surface of reference 106), the second portion having an electric-element forming surface (reference 102) with the electric element formed thereon and the reflective-surface forming surface of the first portion being formed in such a shape as to be substantially inscribed in the electric-element forming surface of the second portion (the reflective-forming surface, the bottom surface of the movable plate, is substantially enclosed within the perimeter of the electric-element forming surface so that every vertex, all four corners of the rectangle, of the reflective-forming surface is incident on the perimeter of the electric-element forming surface at the corners of the electric-element forming surface), wherein the reflective-surface forming surface of the first portion is smaller than the electric-element forming surface of the second portion (shown in Figure 5A).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minamoto.

Minamoto discloses the claimed invention except for the reflective-surface forming surface of the first portion having an elliptical shape (claim 2) or a dodecagonal shape (claim 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to change the shape of the reflective-surface forming surface from rectangular to elliptical or dodecagonal, since it has been held that a mere change in shape of an element is generally recognized as being within the level of ordinary skill in art when the change in shape is not significant to the function of the combination. Further, one would have been motivated to select the elliptical or dodecagonal shape for the purpose of eliminating the corners of the rectangle and the possibility of debris collecting in the corners.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Denise S Allen whose telephone number is (703) 305-7407. The examiner can normally be reached on Monday - Friday, 8:30am - 5:00pm.

Application/Control Number: 10/004,660
Art Unit: 2872


Page 5

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A Dunn can be reached on (703) 305-0024. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

Denise S Allen
Examiner
Art Unit 2872


dsa


Audrey Chang
Primary Examiner
Technology Center 2800